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**Pharmaceuticals**

Anthony J. Maddaluna  
General Manager

November 26, 1997

*Felix*  
*717-9500*

Ms. Elizabeth Muñoz, Director  
Air Quality Section  
Puerto Rico Environmental Quality Board  
P. O. Box 11488  
Santurce, Puerto Rico 00910

Dear Ms. Muñoz:

**Reference: Pfizer's New Utility Plant**

In September of 1996, your office issued Pfizer Pharmaceuticals, Inc. (PPI) a permit to construct (PFE-09-0696-11-C) a new utility plant at the Barceloneta facility. The purpose of this letter is to advise you of the status of the project and to request an extension of time to conduct the emission stack testing required by the permit.

Briefly, the project involves the installation of five 1600 KW diesel engine generators, a 30,000 lb./hr heat recovery steam generator (HRSG), and a 30,000 lb./hr steam package boiler. The diesel engines are equipped with a two-stage Selective Catalytic Reduction (SCR) system to minimize NOx emissions. The hot exhaust from the secondary SCR is routed to the HRSG and used to produce steam. The HRSG and package boiler are equipped with low NOx burners. A continuous emission monitor (CEM) is installed on the exhaust of the HRSG to monitor NOx emissions from the engines and the HRSG.

The utility plant will burn only low sulfur fuel (<0.2%) to minimize emissions of SO2. Two existing steam boilers will be decommissioned after the entire utility plant becomes fully operational. The current plan is to operate the HRSG boiler as the primary source of steam for the plant. The package boiler will be used to meet peak steam demands and as a backup for the HRSG. As a result of PREPA's current electricity rate structure, the near term plan is to run the engines only on weekdays and during PREPA outage periods.

The initial startups of the package boiler and the HRSG boiler were July 17, 1997 and July 29, 1997, respectively. Commissioning of the engine generators commenced in late June of this year with the anticipated initial startup of the engine generators scheduled for September. This planned startup date has been delayed somewhat due to

commissioning issues with the engine generators. Startup is now planned for December.

During early engine generator test runs slightly more ammonia slippage in the SCR than anticipated was experienced. It was determined the catalyst was not packed tightly enough in the units. To resolve this problem the catalyst was completely removed from the units and repacked. This resulted in a significant delay in the planned startup date. Please note that, although the ammonia slippage was slightly higher than the design specification, the SCRs still achieved excellent NO<sub>x</sub> reduction (>97.5% prior to being repacked). Further, although electricity has been produced during the engine generator test runs, the purpose of these test runs has been to shake down the complex utility system.

As a result of the delays in the initial startup date of the engine generators, PPI is requesting an extension of the deadline to conduct the NO<sub>x</sub> performance tests of the HRSG and the package boiler. The construction permit requires that a NO<sub>x</sub> performance test be conducted on the boilers within 180 days of their initial startup. Since the HRSG started producing steam for production use on July 17, the deadline for testing is January 17, 1998. The construction permit also requires stack testing of engines and SCRs within 180 days after initial startup which, as noted above, is now anticipated for December. It is preferable to test all the units at the same time.

Since plant production is scheduled to be very low from early December through the end of January, both steam and electricity would have to be wasted if the testing is conducted anytime prior to January 17. As a result, an extension to the deadline for the required HRSG and package boiler NO<sub>x</sub> performance test until March 15, 1998 is requested. At this time it is currently planned to test both the engines and SCRs.

The commissioning process has revealed some additional issues that are currently being addressed. First, it is taking slightly more time to heat up the SCR units to the required operational temperature than anticipated in the preliminary design. This estimate was the basis of the time limitation in condition number 7 of the construction permit. Several technical options are currently being evaluated to assure the critical operating temperature is reached as quickly as possible, however, circumstances requiring longer warm-up times, (i.e., periods after the engines have been shutdown for a few days) are anticipated.

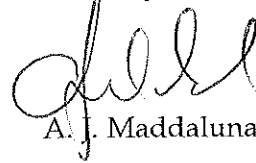
Second, during commissioning it was determined the exhaust from the engines after a cold startup is not warm enough to introduce directly into the HRSG. Exhaust temperatures less than design temperature have caused the HRSG unit to shut down. To avoid a HRSG shut down, it may be necessary to bypass the engine exhaust around the HRSG and CEM for the first five to ten minutes required to reach this critical exhaust temperature. Several technical options to decrease the bypass period and to provide a means of monitoring the bypass emissions with the CEM are currently being

evaluated. In the interim, engine NOx emissions during any bypass period will be determined utilizing conservative emissions factors ( i.e., assuming no SCR reduction). These emissions will be added to the CEM readings to fully account for all NOx emissions from the new utility plant.

At the meeting scheduled for December 2, it is planned to discuss possible conditions to include in the final operating permit in the event that these technical issues cannot be fully resolved.

Your prompt response to our performance test extension request would be appreciated. If you have any questions please contact Mr. Carlos López at (787) 846-4300, extension 2900.

Sincerely,

A handwritten signature in dark ink, appearing to read 'AJM', is written over the printed name 'A. J. Maddaluna'.

A. J. Maddaluna